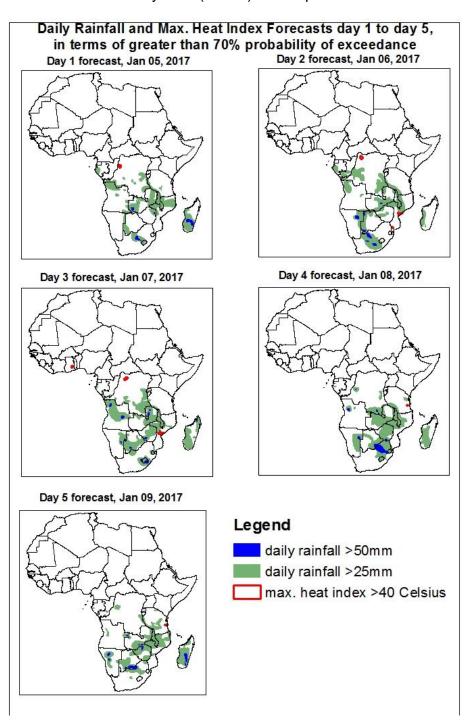
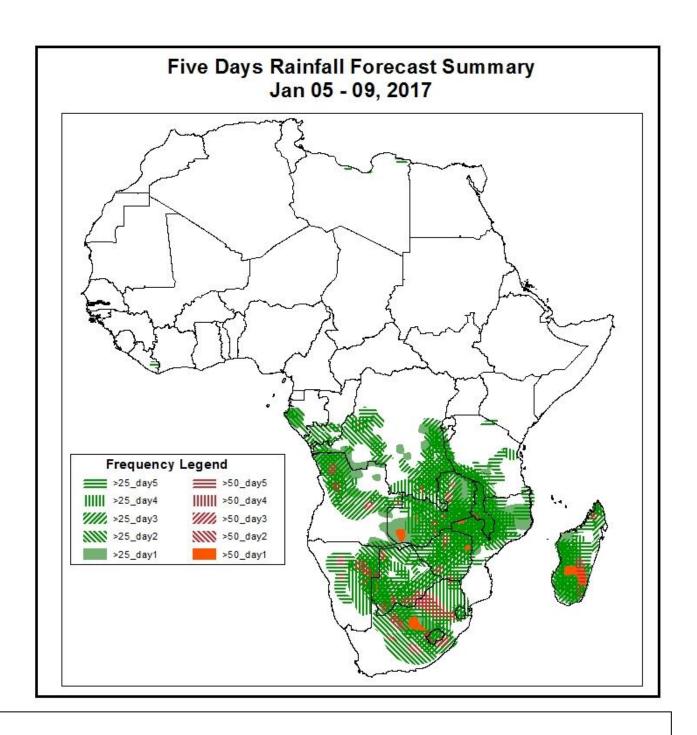
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on Jan 04, 2017)

#### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Jan 05 – 09, 2017)

The forecasts are expressed in terms of high probability of precipitation (POP) and high probability of maximum heat index, based on the NCEP/GFS, ECMWF and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



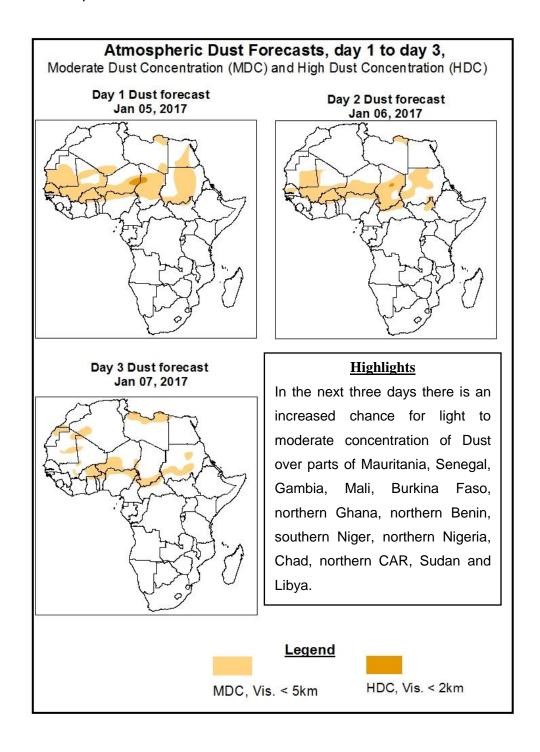


# **Highlights**

In the next five days, lower level wind convergences across the Northern parts of the South African countries are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of light to moderate rainfall over portions of Zambia, Malawi, Mozambique, Namibia, Botswana, Zimbabwe, South Africa, Lesotho, Swaziland and Madagascar, local areas of DRC and Angola.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: Jan 05 – 07, 2017)

The forecasts are expressed in terms of high probability of dust concentration, based on the Navy Aerosol Analysis and Prediction System, NCEP/GFS lower-level wind forecasts and expert assessment.



#### **1.3. Model Discussion,** Valid: Jan 05 – 09, 2017

The Subtropical High Pressure system over Libya is expected to weaken, with its value of the central pressure decreasing from 1029hPa to 1024hPa in the next 48 hours, intensify to 1044hPa in the next 72 hours, and later weaken to 1030hPa during the remaining forecast period.

The St. Helena High Pressure system over the Southeast of the Atlantic Ocean is expected to intensify, with its value of the central pressure increasing from 1025hPa to 1027hPa in the next 48 hours, weaken to 1025hPa in the next 72 hours, intensify to 1026hPa in the next 96 hours, and later weaken to 1025hPa during the remaining forecast period.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to intensify, with its value of the central pressure increasing from 1024hPa to 1026hPa in the next 48 hours, and weaken to 1022hPa during the remaining forecast period.

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At 925hPa, strong dry Northerly to Easterly winds may lead from light to moderate dust concentration over parts of Western Sahara, Mauritania, Senegal, Gambia, western Algeria, Mali, Burkina Faso, northern Ghana, northern Benin, southern Niger, northern Nigeria, Chad, northern CAR, Sudan, Egypt and Libya..

At 850hPa level, lower level wind convergences are expected to prevail over Cameroon, Gabon, Congo, DRC, Tanzania, Angola, Zambia, Namibia, Botswana and Zimbabwe.

In the next five days, lower level wind convergences across the Northern parts of the South African countries are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of light to moderate rainfall over portions of Zambia, Malawi, Mozambique, Namibia, Botswana, Zimbabwe, South Africa, Lesotho, Swaziland and Madagascar, local areas of DRC and Angola.

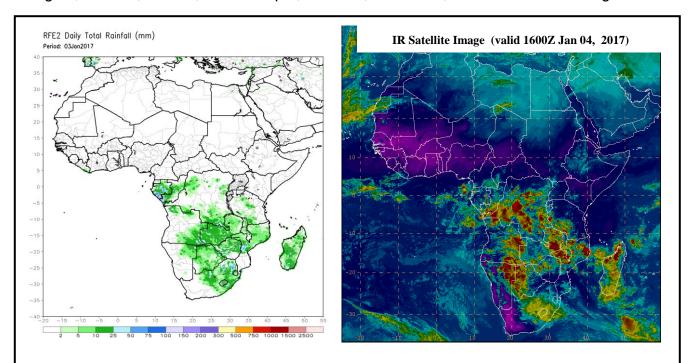
## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (Jan 03, 2017)

Light to moderate rainfall was observed over portions of Gabon, Congo, DRC, Tanzania, Angola, Zambia, Mozambique, Namibia, Botswana, Zimbabwe, South Africa and Madagascar.

## **2.2.** Weather assessment for the current day (Jan 04, 2017)

Intense convective clouds are observed over portions of Gabon, Congo, DRC, Tanzania, Angola, Zambia, Malawi, Mozambique, Namibia, Botswana, Zimbabwe and Madagascar.



Previous day rainfall condition over Africa (Left) based on the NCEP CPCE/RFE and current day cloud cover (right) based on IR Satellite image.

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